SEQUENCE LISTING

<110> INCYTE PHARMACEUTICALS, INC.
TANG, Y. Tom
YUE, Henry
HILLMAN, Jennifer L.
GUEGLER, Karl J.
CORLEY, Neil C.
LAL, Preeti
AZIMZAI, Yalda
BAUGHN, Mariah R.
JUNMING, Yang
SHIH, Leo L.

<120> PROLIFERATION AND APOPTOSIS RELATED PROTEINS

<130> PF-0619 PCT

<140> To Be Assigned
<141> Herewith

<150> 09/175,737; unassigned; 60/118,559; 09/249,740; unassigned; 60/154,336
<151> 1998-10-20; 1998-10-20; 1999-02-04; 1999-04-11; 1999-04-11; 1999-04-22

<160> 44

<170> PERL Program

<210> 1
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<212> PRT
<213> Homo sapiens

<220>
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Val Thr Gly Ala Gly Gly Trp Gly Ser Ala Ala Val Cys Arg Gly
             20                  25                  30
Arg Ala Leu Arg Gly Arg Glu Pro Ala Leu Pro Ser Ala Ser Phe
             35                  40                  45
Pro Asp Val Ala Ala Cys Pro Gly Ser Leu Asp Cys Ala Leu Lys
             50                  55                  60
Arg Arg Ala Arg Cys Pro Pro Gly Ala His Ala Cys Gly Pro Cys
             65                  70                  75
Leu Gln Pro Phe Gln Glu Asp Gln Gln Gly Leu Cys Val Pro Arg
             80                  85                  90
Met Arg Arg Pro Pro Gly Gly Gly Arg Pro Gln Pro Arg Leu Glu
             95                 100                 105
```

```
Asp Glu Ile Asp Phe Leu Ala Gln Glu Leu Ala Arg Lys Glu Ser
                110                 115                 120
Gly His Ser Thr Pro Pro Leu Pro Lys Asp Arg Gln Arg Leu Pro
                125                 130                 135
Glu Pro Ala Thr Leu Gly Phe Ser Ala Arg Gly Gln Gly Leu Glu
                140                 145                 150
Leu Gly Leu Pro Ser Thr Pro Gly Thr Pro Thr Pro Thr Pro His
                155                 160                 165
Thr Ser Leu Gly Ser Pro Val Ser Ser Asp Pro Val His Met Ser
                170                 175                 180
Pro Leu Glu Pro Arg Gly Gly Gln Gly Asp Gly Leu Ala Leu Val
                185                 190                 195
Leu Ile Leu Ala Phe Cys Val Ala Gly Ala Ala Ala Leu Ser Val
                200                 205                 210
Ala Ser Leu Cys Trp Cys Arg Leu Gln Arg Glu Ile Arg Leu Thr
                215                 220                 225
Gln Lys Ala Asp Tyr Ala Thr Ala Lys Ala Pro Gly Ser Pro Ala
                230                 235                 240
Ala Pro Arg Ile Ser Pro Gly Asp Gln Arg Leu Ala Gln Ser Ala
                245                 250                 255
Glu Met Tyr His Tyr Gln His Gln Arg Gln Gln Met Leu Cys Leu
                260                 265                 270
Glu Arg His Lys Glu Pro Pro Lys Glu Leu Asp Thr Ala Ser Ser
                275                 280                 285
Asp Glu Glu Asn Glu Asp Gly Asp Phe Thr Val Tyr Glu Cys Pro
                290                 295                 300
Gly Leu Ala Pro Thr Gly Glu Met Glu Val Arg Asn Pro Leu Phe
                305                 310                 315
Asp His Ala Ala Leu Ser Ala Pro Leu Pro Ala Pro Ser Ser Pro
                320                 325                 330
Pro Ala Leu Pro
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<210> 2
<211> 281
<212> PRT
<213> Homo sapiens

<220>
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<223> Incyte ID No: 1880041CD1

<400> 2

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Met Ala Val Asn Val Tyr Ser Thr Ser Val Thr Ser Glu Asn Leu
  1               5                  10                  15
Ser Arg His Asp Met Leu Ala Trp Val Asn Asp Ser Leu His Leu
                20                  25                  30
Asn Tyr Thr Lys Ile Glu Gln Leu Cys Ser Gly Ala Ala Tyr Cys
                35                  40                  45
Gln Phe Met Asp Met Leu Phe Pro Gly Cys Val His Leu Arg Lys
                50                  55                  60
Val Lys Phe Gln Ala Lys Leu Glu His Glu Tyr Ile His Asn Phe
                65                  70                  75
Lys Val Leu Gln Ala Ala Phe Lys Lys Met Gly Val Asp Lys Ile
                80                  85                  90
```

```
Ile Pro Val Glu Lys Leu Val Lys Gly Lys Phe Gln Asp Asn Phe
                 95                  100                 105
Glu Phe Ile Gln Trp Phe Lys Lys Phe Phe Asp Ala Asn Tyr Asp
                110                 115                 120
Gly Lys Asp Tyr Asn Pro Leu Leu Ala Arg Gln Gly Gln Asp Val
                125                 130                 135
Ala Pro Pro Pro Asn Pro Gly Asp Gln Ile Phe Asn Lys Ser Lys
                140                 145                 150
Lys Leu Ile Gly Thr Ala Val Pro Gln Arg Thr Ser Pro Thr Gly
                155                 160                 165
Pro Lys Asn Met Gln Thr Ser Gly Arg Leu Ser Asn Val Ala Pro
                170                 175                 180
Pro Cys Ile Leu Arg Lys Asn Pro Pro Ser Ala Arg Asn Gly Gly
                185                 190                 195
His Glu Thr Asp Ala Gln Ile Leu Glu Leu Asn Gln Gln Leu Val
                200                 205                 210
Asp Leu Lys Leu Thr Val Asp Gly Leu Glu Lys Glu Arg Asp Phe
                215                 220                 225
Tyr Phe Ser Lys Leu Arg Asp Ile Glu Leu Ile Cys Gln Glu His
                230                 235                 240
Glu Ser Glu Asn Ser Pro Val Ile Ser Gly Ile Ile Gly Ile Leu
                245                 250                 255
Tyr Ala Thr Glu Glu Gly Phe Ala Pro Pro Glu Asp Asp Glu Ile
                260                 265                 270
Glu Glu His Gln Gln Glu Asp Gln Asp Glu Tyr
                275                 280
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<210> 3
<211> 237
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3201881CD1

<400> 3

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Met Gly Glu Asp Ala Ala Gln Ala Glu Lys Phe Gln His Pro Gly
  1               5                  10                  15
Ser Asp Met Arg Gln Glu Lys Pro Ser Ser Pro Ser Pro Met Pro
                20                  25                  30
Ser Ser Thr Pro Ser Pro Ser Leu Asn Leu Gly Asn Thr Glu Glu
                35                  40                  45
Ala Ile Arg Asp Asn Ser Gln Val Asn Ala Val Thr Val Leu Thr
                50                  55                  60
Leu Leu Asp Lys Leu Val Asn Met Leu Asp Ala Val Gln Glu Asn
                65                  70                  75
Gln His Lys Met Glu Gln Arg Gln Ile Ser Leu Glu Gly Ser Val
                80                  85                  90
Lys Gly Ile Gln Asn Asp Leu Thr Lys Leu Ser Lys Tyr Gln Ala
                95                 100                 105
Ser Thr Ser Asn Thr Val Ser Lys Leu Leu Glu Lys Ser Arg Lys
               110                 115                 120
Val Ser Ala His Thr Arg Ala Val Lys Glu Arg Met Asp Arg Gln
```

```
                125                 130                 135
Cys Ala Gln Val Lys Arg Leu Glu Asn Asn His Ala Gln Leu Leu
                140                 145                 150
Arg Arg Asn His Phe Lys Val Leu Ile Phe Gln Glu Glu Asn Glu
                155                 160                 165
Ile Pro Ala Ser Val Phe Val Lys Gln Pro Val Ser Gly Ala Val
                170                 175                 180
Glu Gly Lys Glu Glu Leu Pro Asp Glu Asn Lys Ser Leu Glu Glu
                185                 190                 195
Thr Leu His Thr Val Asp Leu Ser Ser Asp Asp Asp Leu Pro His
                200                 205                 210
Asp Glu Glu Ala Leu Glu Asp Ser Ala Glu Glu Lys Val Gly Arg
                215                 220                 225
Ser Pro Arg Gly Arg Glu Ile Lys Arg Ser Arg Pro
                230                 235
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<210> 4
<211> 941
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 939000CD1

<400> 4

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Met Asn Lys Lys Lys Lys Pro Phe Leu Gly Met Pro Ala Pro Leu
  1                 5                  10                  15
Gly Tyr Val Pro Gly Leu Gly Arg Gly Ala Thr Gly Phe Thr Thr
                 20                  25                  30
Arg Ser Asp Ile Gly Pro Ala Arg Asp Ala Asn Asp Pro Val Asp
                 35                  40                  45
Asp Arg His Ala Pro Pro Gly Lys Arg Thr Val Gly Asp Gln Met
                 50                  55                  60
Lys Lys Asn Gln Ala Ala Asp Asp Asp Asp Glu Asp Leu Asn Asp
                 65                  70                  75
Thr Asn Tyr Asp Glu Phe Asn Gly Tyr Ala Gly Ser Leu Phe Ser
                 80                  85                  90
Ser Gly Pro Tyr Glu Lys Asp Asp Glu Glu Ala Asp Ala Ile Tyr
                 95                 100                 105
Ala Ala Leu Asp Lys Arg Met Asp Glu Arg Arg Lys Glu Arg Arg
                110                 115                 120
Glu Gln Arg Glu Lys Glu Glu Ile Glu Lys Tyr Arg Met Glu Arg
                125                 130                 135
Pro Lys Ile Gln Gln Gln Phe Ser Asp Leu Lys Arg Lys Leu Ala
                140                 145                 150
Glu Val Thr Glu Glu Glu Trp Leu Ser Ile Pro Glu Val Gly Asp
                155                 160                 165
Ala Arg Asn Lys Arg Gln Arg Asn Pro Arg Tyr Glu Lys Leu Thr
                170                 175                 180
Pro Val Pro Asp Ser Phe Phe Ala Lys His Leu Gln Thr Gly Glu
                185                 190                 195
Asn His Thr Ser Val Asp Pro Arg Gln Thr Gln Phe Gly Gly Leu
                200                 205                 210
```

```
Asn Thr Pro Tyr Pro Gly Gly Leu Asn Thr Pro Tyr Pro Gly Gly
                215                 220                 225
Met Thr Pro Gly Leu Met Thr Pro Gly Thr Gly Glu Leu Asp Met
                230                 235                 240
Arg Lys Ile Gly Gln Ala Arg Asn Thr Leu Met Asp Met Arg Leu
                245                 250                 255
Ser Gln Val Ser Asp Ser Val Ser Gly Gln Thr Val Val Asp Pro
                260                 265                 270
Lys Gly Tyr Leu Thr Asp Leu Asn Ser Met Ile Pro Thr His Gly
                275                 280                 285
Gly Asp Ile Asn Asp Ile Lys Lys Ala Arg Leu Leu Leu Lys Ser
                290                 295                 300
Val Arg Glu Thr Asn Pro His His Pro Pro Ala Trp Ile Ala Ser
                305                 310                 315
Ala Arg Leu Glu Glu Val Thr Gly Lys Leu Gln Val Ala Arg Asn
                320                 325                 330
Leu Ile Met Lys Gly Thr Glu Met Cys Pro Lys Ser Glu Asp Val
                335                 340                 345
Trp Leu Glu Ala Ala Arg Leu Gln Pro Gly Asp Thr Ala Lys Ala
                350                 355                 360
Val Val Ala Gln Ala Val Arg His Leu Pro Gln Ser Val Arg Ile
                365                 370                 375
Tyr Ile Arg Ala Ala Glu Leu Glu Thr Asp Ile Arg Ala Lys Lys
                380                 385                 390
Arg Val Leu Arg Lys Ala Leu Glu His Val Pro Asn Ser Val Arg
                395                 400                 405
Leu Trp Lys Ala Ala Val Glu Leu Glu Glu Pro Glu Asp Ala Arg
                410                 415                 420
Ile Met Leu Ser Arg Ala Val Glu Cys Cys Pro Thr Ser Val Glu
                425                 430                 435
Leu Trp Leu Ala Leu Ala Arg Leu Glu Thr Tyr Glu Asn Ala Arg
                440                 445                 450
Lys Val Leu Asn Lys Ala Arg Glu Asn Ile Pro Thr Asp Arg His
                455                 460                 465
Ile Trp Ile Thr Ala Ala Lys Leu Glu Glu Ala Asn Gly Asn Thr
                470                 475                 480
Gln Met Val Glu Lys Ile Ile Asp Arg Ala Ile Thr Ser Leu Arg
                485                 490                 495
Ala Asn Gly Val Glu Ile Asn Arg Glu Gln Trp Ile Gln Asp Ala
                500                 505                 510
Glu Glu Cys Asp Arg Ala Gly Ser Val Ala Thr Cys Gln Ala Val
                515                 520                 525
Met Arg Ala Val Ile Gly Ile Gly Ile Glu Glu Glu Asp Arg Lys
                530                 535                 540
His Thr Trp Met Glu Asp Ala Asp Ser Cys Val Ala His Asn Ala
                545                 550                 555
Leu Glu Cys Ala Arg Ala Ile Tyr Ala Tyr Ala Leu Gln Val Phe
                560                 565                 570
Pro Ser Lys Lys Ser Val Trp Leu Arg Ala Ala Tyr Phe Glu Lys
                575                 580                 585
Asn His Gly Thr Arg Glu Ser Leu Glu Ala Leu Leu Gln Arg Ala
                590                 595                 600
Val Ala His Cys Pro Lys Ala Glu Val Leu Trp Leu Met Gly Ala
                605                 610                 615
Lys Ser Lys Trp Leu Ala Gly Asp Val Pro Ala Ala Arg Ser Ile
```

620 625 630
Leu Ala Leu Ala Phe Gln Ala Asn Pro Asn Ser Glu Glu Ile Trp
635 640 645
Leu Ala Ala Val Lys Leu Glu Ser Glu Asn Asp Glu Tyr Glu Arg
650 655 660
Ala Arg Arg Leu Leu Ala Lys Ala Arg Ser Ser Ala Pro Thr Ala
665 670 675
Arg Val Phe Met Lys Ser Val Lys Leu Glu Trp Val Gln Asp Asn
680 685 690
Ile Arg Ala Ala Gln Asp Leu Cys Glu Glu Ala Leu Arg His Tyr
695 700 705
Glu Asp Phe Pro Lys Leu Trp Met Met Lys Gly Gln Ile Glu Glu
710 715 720
Gln Lys Glu Met Met Glu Lys Ala Arg Glu Ala Tyr Asn Gln Gly
725 730 735
Leu Lys Lys Cys Pro His Ser Thr Pro Leu Trp Leu Leu Leu Ser
740 745 750
Arg Leu Glu Glu Lys Ile Gly Gln Leu Thr Arg Ala Arg Ala Ile
755 760 765
Leu Glu Lys Ser Arg Leu Lys Asn Pro Lys Asn Pro Gly Leu Trp
770 775 780
Leu Glu Ser Val Arg Leu Glu Tyr Arg Ala Gly Leu Lys Asn Ile
785 790 795
Ala Asn Thr Leu Met Ala Lys Ala Leu Gln Glu Cys Pro Asn Ser
800 805 810
Gly Ile Leu Trp Ser Glu Ala Ile Phe Leu Glu Ala Arg Pro Gln
815 820 825
Arg Arg Thr Lys Ser Val Asp Ala Leu Lys Lys Cys Glu His Asp
830 835 840
Pro His Val Leu Leu Ala Val Ala Lys Leu Phe Trp Ser Gln Arg
845 850 855
Lys Ile Thr Lys Ala Arg Glu Trp Phe His Arg Thr Val Lys Ile
860 865 870
Asp Ser Asp Leu Gly Asp Ala Trp Ala Phe Phe Tyr Lys Phe Glu
875 880 885
Leu Gln His Gly Thr Glu Glu Gln Gln Glu Glu Val Arg Lys Arg
890 895 900
Cys Glu Ser Ala Glu Pro Arg His Gly Glu Leu Trp Cys Ala Val
905 910 915
Ser Lys Asp Ile Ala Asn Trp Gln Lys Lys Ile Gly Asp Ile Leu
920 925 930
Arg Leu Val Ala Gly Arg Ile Lys Asn Thr Phe
935 940

<210> 5
<211> 918
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
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<400> 5

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  1               5                  10                  15
Arg Arg Ala Thr Leu Leu Ser Ala Arg Gln Gly Met Met Ser Ala
                20                  25                  30
Arg Gly Asp Phe Leu Asn Tyr Ala Leu Ser Leu Met Arg Ser His
                35                  40                  45
Asn Asp Glu His Ser Asp Val Leu Pro Val Leu Asp Val Cys Ser
                50                  55                  60
Leu Lys His Val Ala Tyr Val Phe Gln Ala Leu Ile Tyr Trp Ile
                65                  70                  75
Lys Ala Met Asn Gln Gln Thr Thr Leu Asp Thr Pro Gln Leu Glu
                80                  85                  90
Arg Lys Arg Thr Arg Glu Leu Leu Glu Leu Gly Ile Asp Asn Glu
                95                 100                 105
Asp Ser Glu His Glu Asn Asp Asp Asp Thr Asn Gln Ser Ala Thr
               110                 115                 120
Leu Asn Asp Lys Asp Asp Asp Ser Leu Pro Ala Glu Thr Gly Gln
               125                 130                 135
Asn His Pro Phe Phe Arg Arg Ser Asp Ser Met Thr Phe Leu Gly
               140                 145                 150
Cys Ile Pro Pro Asn Pro Phe Glu Val Pro Leu Ala Glu Ala Ile
               155                 160                 165
Pro Leu Ala Asp Gln Pro His Leu Leu Gln Pro Asn Ala Arg Lys
               170                 175                 180
Glu Asp Leu Phe Gly Arg Pro Ser Gln Gly Leu Tyr Ser Ser Ser
               185                 190                 195
Ala Ser Ser Gly Lys Cys Leu Met Glu Val Thr Val Asp Arg Asn
               200                 205                 210
Cys Leu Glu Val Leu Pro Thr Lys Met Ser Tyr Ala Ala Asn Leu
               215                 220                 225
Lys Asn Val Met Asn Met Gln Asn Arg Gln Lys Lys Glu Gly Glu
               230                 235                 240
Glu Gln Pro Val Leu Pro Glu Glu Thr Glu Ser Ser Lys Pro Gly
               245                 250                 255
Pro Ser Ala His Asp Leu Ala Ala Gln Leu Lys Ser Ser Leu Leu
               260                 265                 270
Ala Glu Ile Gly Leu Thr Glu Ser Glu Gly Pro Pro Leu Thr Ser
               275                 280                 285
Phe Arg Pro Gln Cys Ser Phe Met Gly Met Val Ile Ser His Asp
               290                 295                 300
Met Leu Leu Gly Arg Trp Arg Leu Ser Leu Glu Leu Phe Gly Arg
               305                 310                 315
Val Phe Met Glu Asp Val Gly Ala Glu Pro Gly Ser Ile Leu Thr
               320                 325                 330
Glu Leu Gly Gly Phe Glu Val Lys Glu Ser Lys Phe Arg Arg Glu
               335                 340                 345
Met Glu Lys Leu Arg Asn Gln Gln Ser Arg Asp Leu Ser Leu Glu
               350                 355                 360
Val Lys Val Asp Arg Asp Arg Asp Leu Leu Ile Gln Gln Thr Met
               365                 370                 375
Arg Gln Leu Asn Asn His Phe Gly Arg Arg Cys Ala Thr Thr Pro
               380                 385                 390
Met Ala Val His Arg Val Lys Val Thr Phe Lys Asp Glu Pro Gly
               395                 400                 405
```

Glu Gly Ser Gly Val Ala Arg Ser Phe Tyr Thr Ala Ile Ala Gln
410 415 420
Ala Phe Leu Ser Asn Glu Lys Leu Pro Asn Leu Glu Cys Ile Gln
425 430 435
Asn Ala Asn Lys Gly Thr His Thr Ser Leu Met Gln Arg Leu Arg
440 445 450
Asn Arg Gly Glu Arg Asp Arg Glu Arg Glu Arg Glu Arg Glu Met
455 460 465
Arg Arg Ser Ser Gly Leu Arg Ala Gly Ser Arg Arg Asp Arg Asp
470 475 480
Arg Asp Phe Arg Arg Gln Leu Ser Ile Asp Thr Arg Pro Phe Arg
485 490 495
Pro Ala Ser Glu Gly Asn Pro Ser Asp Asp Pro Glu Pro Leu Pro
500 505 510
Ala His Arg Gln Ala Leu Gly Glu Arg Leu Tyr Pro Arg Val Gln
515 520 525
Ala Met Gln Pro Ala Phe Ala Ser Lys Ile Thr Gly Met Leu Leu
530 535 540
Glu Leu Ser Pro Ala Gln Leu Leu Leu Leu Leu Ala Ser Glu Asp
545 550 555
Ser Leu Arg Ala Arg Val Asp Glu Ala Met Glu Leu Ile Ile Ala
560 565 570
His Gly Arg Glu Asn Gly Ala Asp Ser Ile Leu Asp Leu Gly Leu
575 580 585
Val Asp Ser Ser Glu Lys Val Gln Gln Glu Asn Arg Lys Arg His
590 595 600
Gly Ser Ser Arg Ser Val Val Asp Met Asp Leu Asp Asp Thr Asp
605 610 615
Asp Gly Asp Asp Asn Ala Pro Leu Phe Tyr Gln Pro Gly Lys Arg
620 625 630
Gly Phe Tyr Thr Pro Arg Pro Gly Lys Asn Thr Glu Ala Arg Leu
635 640 645
Asn Cys Phe Arg Asn Ile Gly Arg Ile Leu Gly Leu Cys Leu Leu
650 655 660
Gln Asn Glu Leu Cys Pro Ile Thr Leu Asn Arg His Val Ile Lys
665 670 675
Val Leu Leu Gly Arg Lys Val Asn Trp His Asp Phe Ala Phe Phe
680 685 690
Asp Pro Val Met Tyr Glu Ser Leu Arg Gln Leu Ile Leu Ala Ser
695 700 705
Gln Ser Ser Asp Ala Asp Ala Val Phe Ser Ala Met Asp Leu Ala
710 715 720
Phe Ala Ile Asp Leu Cys Lys Glu Glu Gly Gly Gly Gln Val Glu
725 730 735
Leu Ile Pro Asn Gly Val Asn Ile Pro Val Thr Pro Gln Asn Val
740 745 750
Tyr Glu Tyr Val Arg Lys Tyr Ala Glu His Arg Met Leu Val Val
755 760 765
Ala Glu Gln Pro Leu His Ala Met Arg Lys Gly Leu Leu Asp Val
770 775 780
Leu Pro Lys Asn Ser Leu Glu Asp Leu Thr Ala Glu Asp Phe Arg
785 790 795
Leu Leu Val Asn Gly Cys Gly Glu Val Asn Val Gln Met Leu Ile
800 805 810
Ser Phe Thr Ser Phe Asn Asp Glu Ser Gly Glu Asn Ala Glu Lys

```
                815                 820                 825
Leu Leu Gln Phe Lys Arg Trp Phe Trp Ser Ile Val Glu Lys Met
                830                 835                 840
Ser Met Thr Glu Arg Gln Asp Leu Val Tyr Phe Trp Thr Ser Ser
                845                 850                 855
Pro Ser Leu Pro Ala Ser Glu Glu Gly Phe Gln Pro Met Pro Ser
                860                 865                 870
Ile Thr Ile Arg Pro Pro Asp Asp Gln His Leu Pro Thr Ala Asn
                875                 880                 885
Thr Cys Ile Ser Arg Leu Tyr Val Pro Leu Tyr Ser Ser Lys Gln
                890                 895                 900
Ile Leu Lys Gln Lys Leu Leu Leu Ala Ile Lys Thr Lys Asn Phe
                905                 910                 915
Gly Phe Val
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<210> 6
<211> 324
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2603810CD1

<400> 6

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Met Gly Pro Trp Gly Glu Pro Glu Leu Leu Val Trp Arg Pro Glu
  1               5                  10                  15
Ala Val Ala Ser Glu Pro Pro Val Pro Val Gly Leu Glu Val Lys
                20                  25                  30
Leu Gly Ala Leu Val Leu Leu Leu Val Leu Thr Leu Leu Cys Ser
                35                  40                  45
Leu Val Pro Ile Cys Val Leu Arg Arg Pro Gly Ala Asn His Glu
                50                  55                  60
Gly Ser Ala Ser Arg Gln Lys Ala Leu Ser Leu Val Ser Cys Phe
                65                  70                  75
Ala Gly Gly Val Phe Leu Ala Thr Cys Leu Leu Asp Leu Leu Pro
                80                  85                  90
Asp Tyr Leu Ala Ala Ile Asp Glu Ala Leu Ala Ala Leu His Val
                95                 100                 105
Thr Leu Gln Phe Pro Leu Gln Glu Phe Ile Leu Ala Met Gly Phe
               110                 115                 120
Phe Leu Val Leu Val Met Glu Gln Ile Thr Leu Ala Tyr Lys Glu
               125                 130                 135
Gln Ser Gly Pro Ser Pro Leu Glu Glu Thr Arg Ala Leu Leu Gly
               140                 145                 150
Thr Val Asn Gly Gly Pro Gln His Trp His Asp Gly Pro Gly Val
               155                 160                 165
Pro Gln Ala Ser Gly Ala Pro Ala Thr Pro Ser Ala Leu Arg Ala
               170                 175                 180
Cys Val Leu Val Phe Ser Leu Ala Leu His Ser Val Phe Glu Gly
               185                 190                 195
Leu Ala Val Gly Leu Gln Arg Asp Arg Ala Arg Ala Met Glu Leu
               200                 205                 210
Cys Leu Ala Leu Leu Leu His Lys Gly Ile Leu Ala Val Ser Leu
```

```
                215                 220                 225
Ser Leu Arg Leu Leu Gln Ser His Leu Arg Ala Gln Val Val Ala
                230                 235                 240
Gly Cys Gly Ile Leu Phe Ser Cys Met Thr Pro Leu Gly Ile Gly
                245                 250                 255
Leu Gly Ala Ala Leu Ala Glu Ser Ala Gly Pro Leu His Gln Leu
                260                 265                 270
Ala Gln Ser Val Leu Glu Gly Met Ala Ala Gly Thr Phe Leu Tyr
                275                 280                 285
Ile Thr Phe Leu Glu Ile Leu Pro Gln Glu Leu Ala Ser Ser Glu
                290                 295                 300
Gln Arg Ile Leu Lys Val Ile Leu Leu Leu Ala Gly Phe Ala Leu
                305                 310                 315
Leu Thr Gly Leu Leu Phe Ile Gln Ile
                320
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<210> 7
<211> 185
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2715761CD1

<400> 7

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Met Thr Thr Pro Asn Lys Thr Pro Pro Gly Ala Asp Pro Lys Gln
  1               5                  10                  15
Leu Glu Arg Thr Gly Thr Val Arg Glu Ile Gly Ser Gln Ala Val
                20                  25                  30
Trp Ser Leu Ser Ser Cys Lys Pro Gly Phe Gly Val Asp Gln Leu
                35                  40                  45
Arg Asp Asp Asn Leu Glu Thr Tyr Trp Gln Ser Asp Gly Ser Gln
                50                  55                  60
Pro His Leu Val Asn Ile Gln Phe Arg Arg Lys Thr Thr Val Lys
                65                  70                  75
Thr Leu Cys Ile Tyr Ala Asp Tyr Lys Ser Asp Glu Ser Tyr Thr
                80                  85                  90
Pro Ser Lys Ile Ser Val Arg Val Gly Asn Asn Phe His Asn Leu
                95                 100                 105
Gln Glu Ile Arg Gln Leu Glu Leu Val Glu Pro Ser Gly Trp Ile
               110                 115                 120
His Val Pro Leu Thr Asp Asn His Lys Lys Pro Thr Arg Thr Phe
               125                 130                 135
Met Ile Gln Ile Ala Val Leu Ala Asn His Gln Asn Gly Arg Asp
               140                 145                 150
Thr His Met Arg Gln Ile Lys Ile Tyr Thr Pro Val Glu Glu Ser
               155                 160                 165
Ser Ile Gly Lys Phe Pro Arg Cys Thr Thr Ile Asp Phe Met Met
               170                 175                 180
Tyr Arg Ser Ile Arg
               185
```

<210> 8
<211> 445
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3255641CD1

<400> 8

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Met Leu Ala Ser Tyr Gly Leu Ala Tyr Ser Leu Met Lys Phe Phe
  1               5                  10                  15
Thr Gly Pro Met Ser Asp Phe Lys Asn Val Gly Leu Val Phe Val
                20                  25                  30
Asn Ser Lys Arg Asp Arg Thr Lys Ala Val Leu Cys Met Val Val
                35                  40                  45
Ala Gly Ala Ile Ala Ala Val Phe His Thr Leu Ile Ala Tyr Ser
                50                  55                  60
Asp Leu Gly Tyr Tyr Ile Ile Asn Lys Leu His His Val Asp Glu
                65                  70                  75
Ser Val Gly Ser Lys Thr Arg Arg Ala Phe Leu Tyr Leu Ala Ala
                80                  85                  90
Phe Pro Phe Met Asp Ala Met Ala Trp Thr His Ala Gly Ile Leu
                95                 100                 105
Leu Lys His Lys Tyr Ser Phe Leu Val Gly Cys Ala Ser Ile Ser
               110                 115                 120
Asp Val Ile Ala Gln Val Val Phe Val Ala Ile Leu Leu His Ser
               125                 130                 135
His Leu Glu Cys Arg Glu Pro Leu Leu Ile Pro Ile Leu Ser Leu
               140                 145                 150
Tyr Met Gly Ala Leu Val Arg Cys Thr Thr Leu Cys Leu Gly Tyr
               155                 160                 165
Tyr Lys Asn Ile His Asp Ile Ile Pro Asp Arg Ser Gly Pro Glu
               170                 175                 180
Leu Gly Gly Asp Ala Thr Ile Arg Lys Met Leu Ser Phe Trp Trp
               185                 190                 195
Pro Leu Ala Leu Ile Leu Ala Thr Gln Arg Ile Ser Arg Pro Ile
               200                 205                 210
Val Asn Leu Phe Val Ser Arg Asp Leu Gly Gly Ser Ser Ala Ala
               215                 220                 225
Thr Glu Ala Val Ala Ile Leu Thr Ala Thr Tyr Pro Val Gly His
               230                 235                 240
Met Pro Tyr Gly Trp Leu Thr Glu Ile Arg Ala Val Tyr Pro Ala
               245                 250                 255
Phe Asp Lys Asn Asn Pro Ser Asn Lys Leu Val Ser Thr Ser Asn
               260                 265                 270
Thr Val Thr Ala Ala His Ile Lys Lys Phe Thr Phe Val Cys Met
               275                 280                 285
Ala Leu Ser Leu Thr Leu Cys Phe Val Met Phe Trp Thr Pro Asn
               290                 295                 300
Val Ser Glu Lys Ile Leu Ile Asp Ile Ile Gly Val Asp Phe Ala
               305                 310                 315
Phe Ala Glu Leu Cys Val Val Pro Leu Arg Ile Phe Ser Phe Phe
               320                 325                 330
Pro Val Pro Val Thr Val Arg Ala His Leu Thr Gly Trp Leu Met
```

```
                335                 340                 345
Thr Leu Lys Lys Thr Phe Val Leu Ala Pro Ser Ser Val Leu Arg
                350                 355                 360
Ile Ile Val Leu Ile Ala Ser Leu Val Val Leu Pro Tyr Leu Gly
                365                 370                 375
Val His Gly Ala Thr Leu Gly Val Gly Ser Leu Leu Ala Gly Phe
                380                 385                 390
Val Gly Glu Ser Thr Met Val Ala Ile Ala Ala Cys Tyr Val Tyr
                395                 400                 405
Arg Lys Gln Lys Lys Lys Met Glu Asn Glu Ser Ala Thr Glu Gly
                410                 415                 420
Glu Asp Ser Ala Met Thr Asp Met Pro Pro Thr Glu Glu Val Thr
                425                 430                 435
Asp Ile Val Glu Met Arg Glu Glu Asn Glu
                440                 445
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<210> 9
<211> 73
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3620391CD1

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<400> 9
Met Pro Arg Glu Arg Arg Glu Arg Asp Ala Lys Glu Arg Asp Thr
  1               5                  10                  15
Met Lys Glu Asp Gly Gly Ala Glu Phe Ser Ala Arg Ser Arg Lys
                20                  25                  30
Arg Lys Ala Asn Val Thr Val Phe Cys Arg Ile Gln Met Lys Lys
                35                  40                  45
Trp Pro Lys Ser Thr Gly Arg Arg Trp Thr Ser Val Gly Ala Arg
                50                  55                  60
Leu Gly Arg Met Met Gln Ser Val Gln Ala Pro Ala Pro
                65                  70
```

<210> 10
<211> 288
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3969860CD1

```
<400> 10
Met Ala Ala Leu Phe Gln Glu Ala Ser Ser Cys Pro Val Cys Ser
  1               5                  10                  15
Asp Tyr Leu Glu Lys Pro Met Ser Leu Glu Cys Gly Cys Ala Val
                20                  25                  30
Cys Leu Lys Cys Ile Asn Ser Leu Gln Lys Glu Pro His Gly Glu
                35                  40                  45
```

```
Asp Leu Leu Cys Cys Cys Ser Ser Met Val Ser Arg Lys Asn Lys
                 50                  55                  60
Ile Arg Arg Asn Arg Gln Leu Glu Arg Leu Ala Ser His Ile Lys
                 65                  70                  75
Glu Leu Glu Pro Lys Leu Lys Lys Ile Leu Gln Met Asn Pro Arg
                 80                  85                  90
Met Arg Lys Phe Gln Val Asp Met Thr Leu Asp Ala Asn Thr Ala
                 95                 100                 105
Asn Asn Phe Leu Leu Ile Ser Asp Asp Leu Arg Ser Val Arg Ser
                110                 115                 120
Gly Arg Ile Arg Gln Asn Arg Gln Asp Leu Ala Glu Arg Phe Asp
                125                 130                 135
Val Ser Val Cys Ile Leu Gly Ser Pro Arg Phe Thr Cys Gly Arg
                140                 145                 150
His Cys Trp Glu Val Asp Val Gly Thr Ser Thr Glu Trp Asp Leu
                155                 160                 165
Gly Val Cys Arg Glu Ser Val His Arg Lys Gly Arg Ile Gln Leu
                170                 175                 180
Thr Thr Glu Leu Gly Phe Trp Thr Val Ser Leu Arg Asp Gly Gly
                185                 190                 195
Arg Leu Ser Ala Ser Thr Val Pro Leu Thr Phe Leu Phe Val Asp
                200                 205                 210
Arg Lys Leu Gln Arg Val Gly Ile Phe Leu Asp Met Gly Met Gln
                215                 220                 225
Asn Val Ser Phe Phe Asp Ala Glu Ser Gly Ser His Val Tyr Thr
                230                 235                 240
Phe Arg Ser Val Ser Ala Glu Glu Pro Leu Arg Pro Phe Leu Ala
                245                 250                 255
Pro Ser Val Pro Pro Asn Gly Asp Gln Gly Val Leu Ser Ile Cys
                260                 265                 270

Pro Leu Met Asn Ser Gly Thr Thr Asp Ala Pro Val Arg Pro Gly
                275                 280                 285
Glu Ala Lys
```

<210> 11
<211> 98
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 4286006CD1

<400> 11

```
Met Ala Lys Phe Gly Val His Arg Ile Leu Leu Leu Ala Ile Ser
  1               5                  10                  15
Leu Thr Lys Cys Leu Glu Ser Thr Lys Leu Leu Ala Asp Leu Lys
                 20                  25                  30
Lys Cys Gly Asp Leu Glu Cys Glu Ala Leu Ile Asn Arg Val Ser
                 35                  40                  45
Ala Met Arg Asp Tyr Arg Gly Pro Asp Cys Arg Tyr Leu Asn Phe
                 50                  55                  60
Thr Lys Gly Glu Glu Ile Ser Val Tyr Val Lys Leu Ala Gly Asp
```

```
                    65                  70                  75
Arg Glu Asp Leu Trp Ala Gly Ser Lys Gly Lys Glu Phe Gly Tyr
                    80                  85                  90
Phe Pro Arg Asp Ala Val Gln Ile
                    95

<210> 12
<211> 549
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 4325626CD1

<400> 12
Met Asp Val Val Glu Val Ala Gly Ser Trp Trp Ala Gln Glu Arg
  1                 5                  10                  15
Glu Asp Ile Ile Met Lys Tyr Glu Lys Gly His Arg Ala Gly Leu
                    20                  25                  30
Pro Glu Asp Lys Gly Pro Lys Pro Phe Arg Ser Tyr Asn Asn Asn
                    35                  40                  45
Val Asp His Leu Gly Ile Val His Glu Thr Glu Leu Pro Pro Leu
                    50                  55                  60
Thr Ala Arg Glu Ala Lys Gln Ile Arg Arg Glu Ile Ser Arg Lys
                    65                  70                  75
Ser Lys Trp Val Asp Met Leu Gly Asp Trp Glu Lys Tyr Lys Ser
                    80                  85                  90
Ser Arg Lys Leu Ile Asp Arg Ala Tyr Lys Gly Met Pro Met Asn
                    95                 100                 105
Ile Arg Gly Pro Met Trp Ser Val Leu Leu Asn Thr Glu Glu Met
                   110                 115                 120
Lys Leu Lys Asn Pro Gly Arg Tyr Gln Ile Met Lys Glu Lys Gly
                   125                 130                 135
Lys Arg Ser Ser Glu His Ile Gln Arg Ile Asp Arg Asp Val Ser
                   140                 145                 150
Gly Thr Leu Arg Lys His Ile Phe Phe Arg Asp Arg Tyr Gly Thr
                   155                 160                 165
Lys Gln Arg Glu Leu Leu His Ile Leu Leu Ala Tyr Glu Glu Tyr
                   170                 175                 180
Asn Pro Glu Val Gly Tyr Cys Arg Asp Leu Ser His Ile Ala Ala
                   185                 190                 195
Leu Phe Leu Leu Tyr Leu Pro Glu Glu Asp Ala Phe Trp Ala Leu
                   200                 205                 210
Val Gln Leu Leu Ala Ser Glu Arg His Ser Leu Gln Gly Phe His
                   215                 220                 225
Ser Pro Asn Gly Gly Thr Val Gln Gly Leu Gln Asp Gln Gln Glu
                   230                 235                 240
His Val Val Ala Thr Ser Gln Pro Lys Thr Met Gly His Gln Asp
                   245                 250                 255
Lys Lys Asp Leu Cys Gly Gln Cys Ser Pro Leu Gly Cys Leu Ile
                   260                 265                 270
Arg Ile Leu Ile Asp Gly Ile Ser Leu Gly Leu Thr Leu Arg Leu
                   275                 280                 285
Trp Asp Val Tyr Leu Val Glu Gly Glu Gln Ala Leu Met Pro Ile
```

```
                290                 295                 300
Thr Arg Ile Ala Phe Lys Val Gln Gln Lys Arg Leu Thr Lys Thr
                305                 310                 315
Ser Arg Cys Gly Pro Trp Ala Arg Phe Cys Asn Arg Phe Val Asp
                320                 325                 330
Thr Trp Ala Arg Asp Glu Asp Thr Val Leu Lys His Leu Arg Ala
                335                 340                 345
Ser Met Lys Lys Leu Thr Arg Lys Gln Gly Asp Leu Pro Pro Pro
                350                 355                 360
Ala Lys Pro Glu Gln Gly Ser Ser Ala Ser Arg Pro Val Pro Ala
                365                 370                 375
Ser Arg Gly Gly Lys Thr Leu Cys Lys Gly Asp Arg Gln Ala Pro
                380                 385                 390
Pro Gly Pro Pro Ala Arg Phe Pro Arg Pro Ile Trp Ser Ala Ser
                395                 400                 405
Pro Pro Arg Ala Pro Arg Ser Ser Thr Pro Cys Pro Gly Gly Ala
                410                 415                 420
Val Arg Glu Asp Thr Tyr Pro Val Gly Thr Gln Gly Val Pro Ser
                425                 430                 435
Pro Ala Leu Ala Gln Gly Gly Pro Gln Gly Ser Trp Arg Phe Leu
                440                 445                 450
Gln Trp Asn Ser Met Pro Arg Leu Pro Thr Asp Leu Asp Val Glu
                455                 460                 465
Gly Pro Trp Phe Arg His Tyr Asp Phe Arg Gln Ser Cys Trp Val
                470                 475                 480
Arg Ala Ile Ser Gln Glu Asp Gln Leu Ala Pro Cys Trp Gln Ala
                485                 490                 495
Glu His Pro Ala Glu Arg Val Arg Ser Ala Phe Ala Ala Pro Ser
                500                 505                 510
Thr Asp Ser Asp Gln Gly Thr Pro Phe Arg Ala Arg Asp Glu Gln
                515                 520                 525
Pro Cys Ala Pro Thr Ser Gly Pro Cys Leu Cys Gly Leu His Leu
                530                 535                 540
Glu Ser Ser Gln Phe Pro Pro Gly Phe
                545
```

<210> 13
<211> 95
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1438978CD1

<400> 13

```
Met Ser Phe Leu Leu Pro Lys Leu Thr Ser Lys Lys Glu Val Asp
  1               5                  10                  15
Gln Ala Ile Lys Ser Thr Ala Glu Lys Val Leu Val Leu Arg Phe
                20                  25                  30
Gly Arg Asp Glu Asp Pro Val Cys Leu Gln Leu Asp Asp Ile Leu
                35                  40                  45
Ser Lys Thr Ser Ser Asp Leu Ser Lys Met Ala Ala Ile Tyr Leu
                50                  55                  60
```

Val Asp Val Asp Gln Thr Ala Val Tyr Thr Gln Tyr Phe Asp Ile
65 70 75
Ser Tyr Ile Pro Ser Thr Val Phe Phe Phe Asn Gly Gln His Met
80 85 90
Lys Val Asp Tyr Gly
95

<210> 14
<211> 445
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2024773CD1

<400> 14
Met Ala Ala Pro Glu Glu Arg Asp Leu Thr Gln Glu Gln Thr Glu
1 5 10 15
Lys Leu Leu Gln Phe Gln Asp Leu Thr Gly Ile Glu Ser Met Asp
20 25 30
Gln Cys Arg His Thr Leu Glu Gln His Asn Trp Asn Ile Glu Ala
35 40 45
Ala Val Gln Asp Arg Leu Asn Glu Gln Glu Gly Val Pro Ser Val
50 55 60
Phe Asn Pro Pro Pro Ser Arg Pro Leu Gln Val Asn Thr Ala Asp
65 70 75
His Arg Ile Tyr Ser Tyr Val Val Ser Arg Pro Gln Pro Arg Gly
80 85 90
Leu Leu Gly Trp Gly Tyr Tyr Leu Ile Met Leu Pro Phe Arg Phe
95 100 105
Thr Tyr Tyr Thr Ile Leu Asp Ile Phe Arg Phe Ala Leu Arg Phe
110 115 120
Ile Arg Pro Asp Pro Arg Ser Arg Val Thr Asp Pro Val Gly Asp
125 130 135
Ile Val Ser Phe Met His Ser Phe Glu Glu Lys Tyr Gly Arg Ala
140 145 150
His Pro Val Phe Tyr Gln Gly Thr Tyr Ser Gln Ala Leu Asn Asp
155 160 165
Ala Lys Arg Glu Leu Arg Phe Leu Leu Val Tyr Leu His Gly Asp
170 175 180
Asp His Gln Asp Ser Asp Glu Phe Cys Arg Asn Thr Leu Cys Ala
185 190 195
Pro Glu Val Ile Ser Leu Ile Asn Thr Arg Met Leu Phe Trp Ala
200 205 210
Cys Ser Thr Asn Lys Pro Glu Gly Tyr Arg Val Ser Gln Ala Leu
215 220 225
Arg Glu Asn Thr Tyr Pro Phe Leu Ala Met Ile Met Leu Lys Asp
230 235 240
Arg Arg Met Thr Val Val Gly Arg Leu Glu Gly Leu Ile Gln Pro
245 250 255
Asp Asp Leu Ile Asn Gln Leu Thr Phe Ile Met Asp Ala Asn Gln
260 265 270
Thr Tyr Leu Val Ser Glu Arg Leu Glu Arg Glu Glu Arg Asn Gln
275 280 285

```
Thr Gln Val Leu Arg Gln Gln Gln Asp Glu Ala Tyr Leu Ala Ser
                290                 295                 300
Leu Arg Ala Asp Gln Glu Lys Glu Arg Lys Lys Arg Glu Glu Arg
                305                 310                 315
Glu Arg Lys Arg Arg Lys Glu Glu Glu Val Gln Gln Gln Lys Leu
                320                 325                 330
Ala Glu Glu Arg Arg Arg Gln Asn Leu Gln Glu Glu Lys Glu Arg
                335                 340                 345
Lys Leu Glu Cys Leu Pro Pro Glu Pro Ser Pro Asp Asp Pro Glu
                350                 355                 360
Ser Val Lys Ile Ile Phe Lys Leu Pro Asn Asp Ser Arg Val Glu
                365                 370                 375
Arg Arg Phe His Phe Ser Gln Ser Leu Thr Val Ile His Asp Phe
                380                 385                 390
Leu Phe Ser Leu Lys Glu Ser Pro Glu Lys Phe Gln Ile Glu Ala
                395                 400                 405
Asn Phe Pro Arg Arg Val Leu Pro Cys Ile Pro Ser Glu Glu Trp
                410                 415                 420
Pro Asn Pro Pro Thr Leu Gln Glu Ala Gly Leu Ser His Thr Glu
                425                 430                 435
Val Leu Phe Val Gln Asp Leu Thr Asp Glu
                440                 445
```

<210> 15
<211> 219
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3869790CD1

<400> 15

```
Met Glu Tyr Leu Ser Ala Leu Asn Pro Ser Asp Leu Leu Arg Ser
  1                 5                  10                  15
Val Ser Asn Ile Ser Ser Glu Phe Gly Arg Arg Val Trp Thr Ser
                 20                  25                  30
Ala Pro Pro Pro Gln Arg Pro Phe Arg Val Cys Asp His Lys Arg
                 35                  40                  45
Thr Ile Arg Lys Gly Leu Thr Ala Ala Thr Arg Gln Glu Leu Leu
                 50                  55                  60
Ala Lys Ala Leu Glu Thr Leu Leu Leu Asn Gly Val Leu Thr Leu
                 65                  70                  75
Val Leu Glu Glu Asp Gly Thr Ala Val Asp Ser Glu Asp Phe Phe
                 80                  85                  90
Gln Leu Leu Glu Asp Asp Thr Cys Leu Met Val Leu Gln Ser Gly
                 95                 100                 105
Gln Ser Trp Ser Pro Thr Arg Ser Gly Val Leu Ser Tyr Gly Leu
                110                 115                 120
Gly Arg Glu Arg Pro Lys His Ser Lys Asp Ile Ala Arg Phe Thr
                125                 130                 135
Phe Asp Val Tyr Lys Gln Asn Pro Arg Asp Leu Phe Gly Ser Leu
                140                 145                 150
Asn Val Lys Ala Thr Phe Tyr Gly Leu Tyr Ser Met Ser Cys Asp
```

```
                155                 160                 165
Phe Gln Gly Leu Gly Pro Lys Lys Val Leu Arg Glu Leu Leu Arg
                170                 175                 180
Trp Thr Ser Thr Leu Leu Gln Gly Leu Gly His Met Leu Leu Gly
                185                 190                 195
Ile Ser Ser Thr Leu Arg His Ala Val Glu Gly Ala Glu Gln Trp
                200                 205                 210
Gln Gln Lys Gly Arg Leu His Ser Tyr
                215
```

<210> 16
<211> 439
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 001273CD1

<400> 16

```
Met Ala Ala Ala Arg Cys Trp Arg Pro Leu Leu Arg Gly Pro Arg
  1               5                  10                  15
Leu Ser Leu His Thr Ala Ala Asn Ala Ala Ala Thr Ala Thr Glu
                20                  25                  30
Thr Thr Cys Gln Asp Val Ala Ala Thr Pro Val Ala Arg Tyr Pro
                35                  40                  45
Pro Ile Val Ala Ser Met Thr Ala Asp Ser Lys Ala Ala Arg Leu
                50                  55                  60
Arg Arg Ile Glu Arg Trp Gln Ala Thr Val His Ala Ala Glu Ser
                65                  70                  75
Val Asp Glu Lys Leu Arg Ile Leu Thr Lys Met Gln Phe Met Lys
                80                  85                  90
Tyr Met Val Tyr Pro Gln Thr Phe Ala Leu Asn Ala Asp Arg Trp
                95                 100                 105
Tyr Gln Tyr Phe Thr Lys Thr Val Phe Leu Ser Gly Leu Pro Pro
               110                 115                 120
Arg Pro Ser Glu Pro Glu Pro Glu Pro Glu Pro Glu Pro Glu Pro
               125                 130                 135
Ala Leu Asp Leu Ala Ala Leu Arg Ala Val Ala Cys Asp Cys Leu
               140                 145                 150
Leu Gln Glu His Phe Tyr Leu Arg Arg Arg Arg Arg Val His Arg
               155                 160                 165
Tyr Glu Glu Ser Glu Val Ile Ser Leu Pro Phe Leu Asp Gln Leu
               170                 175                 180
Val Ser Thr Leu Val Gly Leu Leu Ser Pro His Asn Pro Ala Leu
               185                 190                 195
Ala Ala Ala Ala Leu Asp Tyr Arg Cys Pro Val His Phe Tyr Trp
               200                 205                 210
Val Arg Gly Glu Glu Ile Ile Pro Arg Gly His Arg Arg Gly Arg
               215                 220                 225
Ile Asp Asp Leu Arg Tyr Gln Ile Asp Asp Lys Pro Asn Asn Gln
               230                 235                 240
Ile Arg Ile Ser Lys Gln Leu Ala Glu Phe Val Pro Leu Asp Tyr
               245                 250                 255
Ser Val Pro Ile Glu Ile Pro Thr Ile Lys Cys Lys Pro Asp Lys
```

```
                260                 265                 270
Leu Pro Leu Phe Lys Arg Gln Tyr Glu Asn His Ile Phe Val Gly
                275                 280                 285
Ser Lys Thr Ala Asp Pro Cys Cys Tyr Gly His Thr Gln Phe His
                290                 295                 300
Leu Leu Pro Asp Lys Leu Arg Arg Glu Arg Leu Leu Arg Gln Asn
                305                 310                 315
Cys Ala Asp Gln Ile Glu Val Val Phe Arg Ala Asn Ala Ile Ala
                320                 325                 330
Ser Leu Phe Ala Trp Thr Gly Ala Gln Ala Met Tyr Gln Gly Phe
                335                 340                 345
Trp Ser Glu Ala Asp Val Thr Arg Pro Phe Val Ser Gln Ala Val
                350                 355                 360
Ile Thr Asp Gly Lys Tyr Phe Ser Phe Phe Cys Tyr Gln Leu Asn
                365                 370                 375
Thr Leu Ala Leu Thr Thr Gln Ala Asp Gln Asn Asn Pro Arg Lys
                380                 385                 390
Asn Ile Cys Trp Gly Thr Gln Ser Lys Pro Leu Tyr Glu Thr Ile
                395                 400                 405
Glu Asp Asn Asp Val Lys Gly Phe Asn Asp Asp Val Leu Leu Gln
                410                 415                 420
Ile Val His Phe Leu Leu Asn Arg Pro Lys Glu Glu Lys Ser Gln
                425                 430                 435
Leu Leu Glu Asn
```

<210> 17
<211> 526
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 411831CD1

```
<400> 17
Met Ala Ser Gly Pro His Ser Thr Ala Thr Ala Ala Ala Ala Ala
  1                 5                  10                  15
Ser Ser Ala Ala Pro Ser Ala Gly Gly Ser Ser Ser Gly Thr Thr
                 20                  25                  30
Thr Thr Thr Thr Thr Thr Thr Gly Gly Ile Leu Ile Gly Asp Arg
                 35                  40                  45
Leu Tyr Ser Glu Val Ser Leu Thr Ile Asp His Ser Leu Ile Pro
                 50                  55                  60
Glu Glu Arg Leu Ser Pro Thr Pro Ser Met Gln Asp Gly Leu Asp
                 65                  70                  75
Leu Pro Ser Glu Thr Asp Leu Arg Ile Leu Gly Cys Glu Leu Ile
                 80                  85                  90
Gln Ala Ala Gly Ile Leu Leu Arg Leu Pro Gln Val Ala Met Ala
                 95                 100                 105
Thr Gly Gln Val Leu Phe His Arg Phe Phe Tyr Ser Lys Ser Phe
                110                 115                 120
Val Lys His Ser Phe Glu Ile Val Ala Met Ala Cys Ile Asn Leu
                125                 130                 135
Ala Ser Lys Ile Glu Glu Ala Pro Arg Arg Ile Arg Asp Val Ile
```

```
                140                 145                 150
Asn Val Phe His His Leu Arg Gln Leu Arg Gly Lys Arg Thr Pro
                155                 160                 165
Ser Pro Leu Ile Leu Asp Gln Asn Tyr Ile Asn Thr Lys Asn Gln
                170                 175                 180
Val Ile Lys Ala Glu Arg Arg Val Leu Lys Glu Leu Gly Phe Cys
                185                 190                 195
Val His Val Lys His Pro His Lys Ile Ile Val Met Tyr Leu Gln
                200                 205                 210
Val Leu Glu Cys Glu Arg Asn Gln Thr Leu Val Gln Thr Ala Trp
                215                 220                 225
Asn Tyr Met Asn Asp Ser Leu Arg Thr Asn Val Phe Val Arg Phe
                230                 235                 240
Gln Pro Glu Thr Ile Ala Cys Ala Cys Ile Tyr Leu Ala Ala Arg
                245                 250                 255
Ala Leu Gln Ile Pro Leu Pro Thr Arg Pro His Trp Phe Leu Leu
                260                 265                 270
Phe Gly Thr Thr Glu Glu Glu Ile Gln Glu Ile Cys Ile Glu Thr
                275                 280                 285
Leu Arg Leu Tyr Thr Arg Lys Lys Pro Asn Tyr Glu Leu Leu Glu
                290                 295                 300
Lys Glu Val Glu Lys Arg Lys Val Ala Leu Gln Glu Ala Lys Leu
                305                 310                 315
Lys Ala Lys Gly Leu Asn Pro Asp Gly Thr Pro Ala Leu Ser Thr
                320                 325                 330
Leu Gly Gly Phe Ser Pro Ala Ser Lys Pro Ser Ser Pro Arg Glu
                335                 340                 345
Val Lys Ala Glu Glu Lys Ser Pro Ile Ser Ile Asn Val Lys Thr
                350                 355                 360
Val Lys Lys Glu Pro Glu Asp Arg Gln Gln Ala Ser Lys Ser Pro
                365                 370                 375
Tyr Asn Gly Val Arg Lys Asp Ser Lys Arg Ser Arg Asn Ser Arg
                380                 385                 390
Ser Ala Ser Arg Ser Arg Ser Arg Thr Arg Ser Arg Ser Arg Ser
                395                 400                 405
His Thr Pro Arg Arg His Tyr Asn Asn Arg Arg Ser Arg Ser Gly
                410                 415                 420
Thr Tyr Ser Ser Arg Ser Arg Ser Arg Ser Arg Ser His Ser Glu
                425                 430                 435
Ser Pro Arg Arg His His Asn His Gly Ser Pro His Leu Lys Ala
                440                 445                 450
Lys His Thr Arg Asp Asp Leu Lys Ser Ser Asn Arg His Gly His
                455                 460                 465
Lys Arg Lys Lys Ser Arg Ser Arg Ser Gln Ser Lys Ser Arg Asp
                470                 475                 480
His Ser Asp Ala Ala Lys Lys His Arg His Glu Arg Gly His His
                485                 490                 495
Arg Asp Arg Arg Glu Arg Ser Arg Ser Phe Glu Arg Ser His Lys
                500                 505                 510
Ser Lys His His Gly Gly Ser Arg Ser Gly His Gly Arg His Arg
                515                 520                 525
Arg
```

<210> 18

<211> 298
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1520835CD1

<400> 18

Met	Gly	Pro	Lys	Asp	Ser	Ala	Lys	Cys	Leu	His	Arg	Gly	Pro	Gln	
1				5				10						15	
Pro	Ser	His	Trp	Ala	Ala	Gly	Asp	Gly	Pro	Thr	Gln	Glu	Arg	Cys	
			20					25						30	
Gly	Pro	Arg	Ser	Leu	Gly	Ser	Pro	Val	Leu	Gly	Leu	Asp	Thr	Cys	
			35					40						45	
Arg	Ala	Trp	Asp	His	Val	Asp	Gly	Gln	Ile	Leu	Gly	Gln	Leu	Arg	
			50					55						60	
Pro	Leu	Thr	Glu	Glu	Glu	Glu	Glu	Glu	Gly	Ala	Gly	Ala	Thr	Leu	
			65					70						75	
Ser	Arg	Gly	Pro	Ala	Phe	Pro	Gly	Met	Gly	Ser	Glu	Glu	Leu	Arg	
			80					85						90	
Leu	Ala	Ser	Phe	Tyr	Asp	Trp	Pro	Leu	Thr	Ala	Glu	Val	Pro	Pro	
			95					100						105	
Glu	Leu	Leu	Ala	Ala	Ala	Gly	Phe	Phe	His	Thr	Gly	His	Gln	Asp	
			110					115						120	
Lys	Val	Arg	Cys	Phe	Phe	Cys	Tyr	Gly	Gly	Leu	Gln	Ser	Trp	Lys	
			125					130						135	
Arg	Gly	Asp	Asp	Pro	Trp	Thr	Glu	His	Ala	Lys	Trp	Phe	Pro	Ser	
			140					145						150	
Cys	Gln	Phe	Leu	Leu	Arg	Ser	Lys	Gly	Arg	Asp	Phe	Val	His	Ser	
			155					160						165	
Val	Gln	Glu	Thr	His	Ser	Gln	Leu	Leu	Gly	Ser	Trp	Asp	Pro	Trp	
			170					175						180	
Glu	Glu	Pro	Glu	Asp	Ala	Ala	Pro	Val	Ala	Pro	Ser	Val	Pro	Ala	
			185					190						195	
Ser	Gly	Tyr	Pro	Glu	Leu	Pro	Thr	Pro	Arg	Arg	Glu	Val	Gln	Ser	
			200					205						210	
Glu	Ser	Ala	Gln	Glu	Pro	Gly	Gly	Val	Ser	Pro	Ala	Glu	Ala	Gln	
			215					220						225	
Arg	Ala	Trp	Trp	Val	Leu	Glu	Pro	Pro	Gly	Ala	Arg	Asp	Val	Glu	
			230					235						240	
Ala	Gln	Leu	Arg	Arg	Leu	Gln	Glu	Glu	Arg	Thr	Cys	Lys	Val	Cys	
			245					250						255	
Leu	Asp	Arg	Ala	Val	Ser	Ile	Val	Phe	Val	Pro	Cys	Gly	His	Leu	
			260					265						270	
Val	Cys	Ala	Glu	Cys	Ala	Pro	Gly	Leu	Gln	Leu	Cys	Pro	Ile	Cys	
			275					280						285	
Arg	Ala	Pro	Val	Arg	Ser	Arg	Val	Arg	Thr	Phe	Leu	Ser			
			290					295							

<210> 19
<211> 249
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1902803CD1

<400> 19
Met Ala Ala Gly Met Tyr Leu Glu His Tyr Leu Asp Ser Ile Glu
1 5 10 15
Asn Leu Pro Phe Glu Leu Gln Arg Asn Phe Gln Leu Met Arg Asp
20 25 30
Leu Asp Gln Arg Thr Glu Asp Leu Lys Ala Glu Ile Asp Lys Leu
35 40 45
Ala Thr Glu Tyr Met Ser Ser Ala Arg Ser Leu Ser Ser Glu Glu
50 55 60
Lys Leu Ala Leu Leu Lys Gln Ile Gln Glu Ala Tyr Gly Lys Cys
65 70 75
Lys Glu Phe Gly Asp Asp Lys Val Gln Leu Ala Met Gln Thr Tyr
80 85 90
Glu Met Val Asp Lys His Ile Arg Arg Leu Asp Thr Asp Leu Ala
95 100 105
Arg Phe Glu Ala Asp Leu Lys Glu Lys Gln Ile Glu Ser Ser Asp
110 115 120
Tyr Asp Ser Ser Ser Ser Lys Gly Lys Lys Lys Gly Arg Thr Gln
125 130 135
Lys Glu Lys Lys Ala Ala Arg Ala Arg Ser Lys Gly Lys Asn Ser
140 145 150
Asp Glu Glu Ala Pro Lys Thr Ala Gln Lys Lys Leu Lys Leu Val
155 160 165
Arg Thr Ser Pro Glu Tyr Gly Met Pro Ser Val Thr Phe Gly Ser
170 175 180
Val His Pro Ser Asp Val Leu Asp Met Pro Val Asp Pro Asn Glu
185 190 195
Pro Thr Tyr Cys Leu Cys His Gln Val Ser Tyr Gly Glu Met Ile
200 205 210
Gly Cys Asp Asn Pro Asp Cys Ser Ile Glu Trp Phe His Phe Ala
215 220 225
Cys Val Gly Leu Thr Thr Lys Pro Arg Gly Lys Trp Phe Cys Pro
230 235 240
Arg Cys Ser Gln Glu Arg Lys Lys Lys
245

<210> 20
<211> 1748
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1342011CB1

<400> 20
cgggtcgacc cacgcgtccg gggggacaag ccagaggctg gaggagcagc atcccttcca 60
ggctgcacac ttgtcagtgc cgggttctgg ggagaaccgc acgggaagga gaggtcgctg 120
gcggcatcgt ttgctgctcc ccagagacag acctgggccc ttcccctctgg gactcccaat 180
ctggacgggg ttcctggctt gctgtggggc atgttgaggc cggaggctgg gcttgtgggg 240

ctgcacggcc ctgcccagga gaactcagca ctgcctggac ggtgaggctc agcttctgag 300
ctgagggctc tatcaggcct ggaagtggac cctggggagg ggtggggcag ggtagttctg 360
ataagtccta ggactgttcg cttccgggtt ctgagccctg gcgtcaggga ggaagggcat 420
gtccagaaca atggccagaa ccaggcccgg ccagctcggg cgggtgacgg gggcgggtgg 480
ctggggcagc gctgccgtgt gcaggggccg agccctgcgg ggccgtgagc cggccctgcc 540
ttctgcttcc ttcccagatg tagccgcctg tcccgggagc ctggactgtg ccctgaagag 600
gcgggcaagg tgtcctcctg gtgcacatgc ctgtgggccc tgccttcagc ccttccagga 660
ggaccagcaa gggctctgtg tgcccaggat gcgccggcct ccaggcgggg gccggcccca 720
gcccagactg gaagatgaga ttgacttcct ggcccaggag cttgcccgga aggagtctgg 780
acactcaact ccgcccctac ccaaggaccg acagcggctc ccggagcctg ccaccctggg 840
cttctcggca cgggggcagg ggctggagct gggcctcccc tccactccag gaacccccac 900
gcccacgccc cacacctccc tgggctcccc tgtgtcatcc gacccggtgc acatgtcgcc 960
cctggagccc cggggagggc aaggcgacgg cctcgccctt gtgctgatcc tggcgttctg 1020
tgtggccggt gcagccgccc tctccgtagc ctccctctgc tggtgcaggc tgcagcgtga 1080
gatccgcctg actcagaagg ccgactacgc cactgcgaag gcccctggct cacctgcagc 1140
tccccggatc tcgcctgggg accagcggct ggcacagagc gcggagatgt accactacca 1200
gcaccaacgg caacagatgc tgtgcctgga gcggcataaa gagccaccca aggagctgga 1260
cacggcctcc tcggatgagg agaatgagga cggagacttc acggtgtacg agtgcccggg 1320
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<211> 1993
<212> DNA
<213> Homo sapiens

<220>
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<213> Homo sapiens

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<213> Homo sapiens

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<223> Incyte ID No: 1902803CB1

<400> 38
gggttaaata caaagcaagg agaatgaaaa ggaccctccc tctgaaatac agcaccggcc 60
tcagcatgga ggcaaaagga cagtgggcaa gaccacgtcc ctccgaaggg agatggctgc 120
ggggatgtat ttggaacatt atctggacag tattgaaaac cttccctttg aattacagag 180
aaactttcag ctcatgaggg acctagacca aagaacagag gacctgaagg ctgaaattga 240
caagttggcc actgagtata tgagtagtgc ccgcagcctg agctccgagg aaaaattggc 300
ccttctcaaa cagatccagg aagcctatgg caagtgcaag gaatttggtg acgacaaggt 360
gcagcttgcc atgcagacct atgagatggt ggacaaacac attcggcggc tggacacaga 420
cctggcccgt tttgaggctg atctcaagga gaaacagatt gagtcaagtg actatgacag 480
ctcttccagc aaaggcaaaa agaaaggccg gactcaaaag gagaagaaag ctgctcgtgc 540
tcgttccaaa gggaaaaact cggatgaaga agcccccaag actgcccaga agaagttaaa 600
gctcgtgcgc acaagtcctg agtatgggat gccctcagtg acctttggca gtgtccaccc 660
ctctgatgtg ttggatatgc ctgtggatcc caacgaaccc acctattgcc tttgtcacca 720
ggtctcctat ggagagatga ttggctgtga caaccctgat tgttccattg agtggttcca 780
ttttgcctgt gtggggctga caaccaagcc tcgggggaaa tggttttgcc cacgctgctc 840
ccaagaacgg aagaagaaat agataagggc cttggattcc aacacagttt cttccacatc 900
ccctgacttg ggctagtggg cagaggaatg cctgtgctgg ggccaggggt tcagggagga 960
gtggatggca cagtgctgtc atcccttctc ctcccctctc cccactcccg gtgctgaggc 1020
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ggcatagcat gggggcagtc ccccagacct cttcattccc cctcctgtgg tgagggctag 1260
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caggtcatct aggctctggc cctagttgaa ggggcacccc ttcctctgtg ccaagaggat 1380
tcatcctggg agagggggca aggtggaatg cagataactc acatgtaaaa ggaacttggg 1440
taggtaaata aaagctatac atgtt 1465

<210> 39
<211> 332
<212> PRT
<213> Mus musculus

<300>
<308> GenBank ID No: g452276

<400> 39
Met Ala Thr Pro Val Pro Pro Pro Ser Pro Arg His Leu Arg Leu
1 5 10 15
Leu Arg Leu Leu Leu Ser Gly Leu Ile Leu Gly Ala Ala Leu Asn
20 25 30
Gly Ala Thr Ala Arg Arg Pro Asp Ala Thr Thr Cys Pro Gly Ser

```
                35                  40                  45
Leu Asp Cys Ala Leu Lys Arg Arg Ala Lys Cys Pro Pro Gly Ala
                50                  55                  60
His Ala Cys Gly Pro Cys Leu Gln Ser Phe Gln Glu Asp Gln Arg
                65                  70                  75
Gly Phe Cys Val Pro Arg Lys His Leu Ser Ser Gly Glu Gly Leu
                80                  85                  90
Pro Gln Pro Arg Leu Glu Glu Glu Ile Asp Ser Leu Ala Gln Glu
                95                 100                 105
Leu Ala Leu Lys Glu Lys Glu Ala Gly His Ser Arg Leu Thr Ala
               110                 115                 120
Gln Pro Leu Leu Glu Arg Ala Gln Lys Leu Leu Glu Pro Ala Ala
               125                 130                 135
Thr Leu Gly Phe Ser Gln Trp Gly Gln Arg Leu Glu Pro Gly Leu
               140                 145                 150
Pro Ser Thr His Gly Thr Ser Ser Pro Ile Pro His Thr Ser Leu
               155                 160                 165
Ser Ser Arg Ala Ser Ser Gly Pro Val Gln Met Ser Pro Leu Glu
               170                 175                 180
Pro Gln Gly Arg His Gly Asn Gly Leu Thr Leu Val Leu Ile Leu
               185                 190                 195
Ala Phe Cys Leu Ala Ser Ser Ala Ala Leu Ala Val Ala Ala Leu
               200                 205                 210
Cys Trp Cys Arg Leu Gln Arg Glu Ile Arg Leu Thr Gln Lys Ala
               215                 220                 225
Asp Tyr Ala Ala Thr Ala Lys Gly Pro Thr Ser Pro Ser Thr Pro
               230                 235                 240
Arg Ile Ser Pro Gly Asp Gln Arg Leu Ala His Ser Ala Glu Met
               245                 250                 255
Tyr His Tyr Gln His Gln Arg Gln Gln Met Leu Cys Leu Glu Arg
               260                 265                 270
His Lys Glu Pro Pro Lys Glu Leu Glu Ser Ala Ser Ser Asp Glu
               275                 280                 285
Glu Asn Glu Asp Gly Asp Phe Thr Val Tyr Glu Cys Pro Gly Leu
               290                 295                 300
Ala Pro Thr Gly Glu Met Glu Val Arg Asn Pro Leu Phe Asp His
               305                 310                 315

Ser Thr Leu Ser Ala Pro Val Pro Gly Pro His Ser Leu Pro Pro
               320                 325                 330
Leu Gln


<210> 40
<211> 268
<212> PRT
<213> Homo sapiens


<300>
<308> GenBank ID No: g998357

<400> 40
Met Ala Val Asn Val Tyr Ser Thr Ser Val Thr Ser Asp Asn Leu
  1               5                  10                  15
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Ser Arg His Asp Met Leu Ala Trp Ile Asn Glu Ser Leu Gln Leu
                 20                  25                  30
Asn Leu Thr Lys Ile Glu Gln Leu Cys Ser Gly Ala Ala Tyr Cys
                 35                  40                  45
Gln Phe Met Asp Met Leu Phe Pro Gly Ser Ile Ala Leu Lys Lys
                 50                  55                  60
Val Lys Phe Gln Ala Lys Leu Glu His Glu Tyr Ile Gln Asn Phe
                 65                  70                  75
Lys Ile Leu Gln Ala Gly Phe Lys Arg Met Gly Val Asp Lys Ile
                 80                  85                  90
Ile Pro Val Asp Lys Leu Val Lys Gly Lys Phe Gln Asp Asn Phe
                 95                 100                 105
Glu Phe Val Gln Trp Phe Lys Lys Phe Phe Asp Ala Asn Tyr Asp
                110                 115                 120
Gly Lys Asp Tyr Asp Pro Val Ala Ala Arg Gln Gly Gln Glu Thr
                125                 130                 135
Ala Val Ala Pro Ser Leu Val Ala Pro Ala Leu Asn Lys Pro Lys
                140                 145                 150
Lys Pro Leu Thr Ser Ser Ser Ala Ala Pro Gln Arg Pro Ile Ser
                155                 160                 165
Thr Gln Arg Thr Ala Ala Ala Pro Lys Ala Gly Pro Gly Val Val
                170                 175                 180
Arg Lys Asn Pro Gly Val Gly Asn Gly Asp Asp Glu Ala Ala Glu
                185                 190                 195
Leu Met Gln Gln Val Asn Val Leu Lys Leu Thr Val Glu Asp Leu
                200                 205                 210
Glu Lys Glu Arg Asp Phe Tyr Phe Gly Lys Leu Arg Asn Ile Glu
                215                 220                 225
Leu Ile Cys Gln Glu Asn Glu Gly Glu Asn Asp Pro Val Leu Gln
                230                 235                 240
Arg Ile Val Asp Ile Leu Tyr Ala Thr Asp Glu Gly Phe Val Ile
                245                 250                 255
Pro Asp Glu Gly Gly Pro Gln Glu Glu Gln Glu Glu Tyr
                260                 265
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<210> 41
<211> 418
<212> PRT
<213> Mus musculus

<300>
<308> GenBank ID No: g455719

<400> 41

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Met Gly Glu Asp Ala Ala Gln Ala Glu Lys Phe Gln His Pro Asn
  1                 5                  10                  15
Thr Asp Met Leu Gln Glu Lys Pro Ser Ser Pro Ser Pro Met Pro
                 20                  25                  30
Ser Ser Thr Pro Ser Pro Ser Leu Asn Leu Gly Ser Thr Glu Glu
                 35                  40                  45
Ala Ile Arg Asp Asn Ser Gln Val Asn Ala Val Thr Val His Thr
                 50                  55                  60
```

```
Leu Leu Asp Lys Leu Val Asn Met Leu Asp Ala Val Arg Glu Asn
                65                  70                  75
Gln His Asn Met Glu Gln Arg Gln Ile Asn Leu Glu Gly Ser Val
                80                  85                  90
Lys Gly Ile Gln Asn Asp Leu Thr Lys Leu Ser Lys Tyr Gln Ala
                95                 100                 105
Ser Thr Ser Asn Thr Val Ser Lys Leu Leu Glu Lys Ser Arg Lys
               110                 115                 120
Val Ser Ala His Thr Arg Ala Val Arg Glu Arg Leu Glu Arg Gln
               125                 130                 135
Cys Val Gln Val Lys Arg Leu Glu Asn Asn His Ala Gln Leu Leu
               140                 145                 150
Arg Arg Asn His Phe Lys Val Leu Ile Phe Gln Glu Glu Ser Glu
               155                 160                 165
Ile Pro Ala Ser Val Phe Val Lys Glu Pro Val Pro Ser Ala Ala
               170                 175                 180
Glu Gly Lys Glu Glu Leu Ala Asp Glu Asn Lys Ser Leu Glu Glu
               185                 190                 195
Thr Leu His Asn Val Asp Leu Ser Ser Asp Asp Glu Leu Pro Arg
               200                 205                 210
Asp Glu Glu Ala Leu Glu Asp Ser Ala Glu Glu Lys Met Glu Glu
               215                 220                 225
Ser Arg Ala Glu Lys Ile Lys Arg Ser Ser Leu Lys Lys Val Asp
               230                 235                 240
Ser Leu Lys Lys Ala Phe Ser Arg Gln Asn Ile Glu Lys Lys Met
               245                 250                 255
Asn Lys Leu Gly Thr Lys Ile Val Ser Val Glu Arg Arg Glu Lys
               260                 265                 270
Ile Lys Lys Ser Leu Thr Pro Asn His Gln Lys Ala Ser Ser Gly
               275                 280                 285
Lys Ser Ser Pro Phe Lys Val Ser Pro Leu Ser Phe Gly Arg Lys
               290                 295                 300
Lys Val Arg Glu Gly Glu Ser Ser Val Glu Asn Glu Thr Lys Leu
               305                 310                 315
Glu Asp Gln Met Gln Glu Asp Arg Glu Glu Gly Ser Phe Thr Glu
               320                 325                 330
Gly Leu Ser Glu Ala Ser Leu Pro Ser Gly Leu Met Glu Gly Ser
               335                 340                 345
Ala Glu Asp Ala Glu Lys Ser Ala Arg Arg Gly Asn Asn Ser Ala
               350                 355                 360
Val Gly Ser Asn Ala Asp Leu Thr Ile Glu Glu Asp Glu Glu Glu
               365                 370                 375
Glu Pro Val Ala Leu Gln Gln Ala Gln Gln Val Arg Tyr Glu Ser
               380                 385                 390
Gly Tyr Met Leu Asn Ser Glu Glu Met Glu Glu Pro Ser Glu Lys
               395                 400                 405
Gln Val Gln Pro Ala Val Leu His Val Asp Gln Thr Ala
               410                 415
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<210> 42
<211> 142
<212> PRT
<213> Homo sapiens

<300>
<308> GenBank ID No: g2565275

<400> 42
Met Ser Tyr Met Leu Pro His Leu His Asn Gly Trp Gln Val Asp
1 5 10 15
Gln Ala Ile Leu Ser Glu Glu Asp Arg Val Val Val Ile Arg Phe
20 25 30
Gly His Asp Trp Asp Pro Thr Cys Met Lys Met Asp Glu Val Leu
35 40 45
Tyr Ser Ile Ala Glu Lys Val Lys Asn Phe Ala Val Ile Tyr Leu
50 55 60
Val Asp Ile Thr Glu Val Pro Asp Phe Asn Lys Met Tyr Glu Leu
65 70 75
Tyr Asp Pro Cys Thr Val Met Phe Phe Phe Arg Asn Lys His Ile
80 85 90
Met Ile Asp Leu Gly Thr Gly Asn Asn Asn Lys Ile Asn Trp Ala
95 100 105
Met Glu Asp Lys Gln Glu Met Val Asp Ile Ile Glu Thr Val Tyr
110 115 120
Arg Gly Ala Arg Lys Gly Arg Gly Leu Val Val Ser Pro Lys Asp
125 130 135
Tyr Ser Thr Lys Tyr Arg Tyr
140

<210> 43
<211> 464
<212> PRT
<213> Drosophila melanogaster

<300>
<308> GenBank ID NO: g3688609

<400> 43
Met Glu Ala Asp Gly Leu Thr Asn Glu Gln Thr Glu Lys Val Leu
1 5 10 15
Gln Phe Gln Asp Leu Thr Gly Ile Glu Asp Met Asn Val Cys Arg
20 25 30
Asp Val Leu Ile Arg His Gln Trp Asp Leu Glu Val Ala Phe Gln
35 40 45
Glu Gln Leu Asn Ile Arg Glu Gly Arg Pro Thr Met Phe Ala Ala
50 55 60
Ser Thr Asp Val Arg Ala Pro Ala Val Leu Asn Asp Arg Phe Leu
65 70 75
Gln Gln Val Phe Ser Ala Asn Met Pro Gly Gly Arg Thr Val Ser
80 85 90
Arg Val Pro Ser Gly Pro Val Pro Arg Ser Phe Thr Gly Ile Ile
95 100 105
Gly Tyr Val Ile Asn Phe Val Phe Gln Tyr Phe Tyr Ser Thr Leu
110 115 120
Thr Ser Ile Val Ser Ala Phe Val Asn Leu Gly Gly Gly Asn Glu
125 130 135

```
Ala Arg Leu Val Thr Asp Pro Leu Gly Asp Val Met Lys Phe Ile
                140                 145                 150
Arg Glu Tyr Tyr Glu Arg Tyr Pro Glu His Pro Val Phe Tyr Gln
                155                 160                 165
Gly Thr Tyr Ala Gln Ala Leu Asn Asp Ala Lys Gln Glu Leu Arg
                170                 175                 180
Phe Leu Ile Val Tyr Leu His Lys Asp Pro Ala Lys Asn Pro Asp
                185                 190                 195
Val Glu Ser Phe Cys Arg Asn Thr Leu Ser Ala Arg Ser Val Ile
                200                 205                 210
Asp Tyr Ile Asn Thr His Thr Leu Leu Trp Gly Cys Asp Val Ala
                215                 220                 225
Thr Pro Glu Gly Tyr Arg Val Met Gln Ser Ile Thr Val Arg Ser
                230                 235                 240
Tyr Pro Thr Met Val Met Ile Ser Leu Arg Ala Asn Arg Met Met
                245                 250                 255
Ile Val Gly Arg Phe Glu Gly Asp Cys Thr Pro Glu Glu Leu Leu
                260                 265                 270
Arg Arg Leu Gln Ser Val Thr Asn Ala Asn Glu Val Trp Leu Ser
                275                 280                 285
Gln Ala Arg Ala Asp Arg Leu Glu Arg Asn Phe Thr Gln Thr Leu
                290                 295                 300
Arg Arg Gln Gln Asp Glu Ala Tyr Glu Gln Ser Leu Leu Ala Asp
                305                 310                 315
Glu Glu Lys Glu Arg Gln Arg Gln Arg Glu Arg Asp Ala Val Arg
                320                 325                 330
Gln Ala Glu Glu Ala Val Glu Gln Ala Arg Arg Asp Val Glu Leu
                335                 340                 345
Arg Lys Glu Glu Ile Ala Arg Gln Lys Ile Glu Leu Ala Thr Leu
                350                 355                 360

Val Pro Ser Glu Pro Ala Ala Asp Ala Val Gly Ala Ile Ala Val
                365                 370                 375
Val Phe Lys Leu Pro Ser Gly Thr Arg Leu Glu Arg Arg Phe Asn
                380                 385                 390
Gln Thr Asp Ser Val Leu Asp Val Tyr His Tyr Leu Phe Cys His
                395                 400                 405
Pro Asp Ser Pro Asp Glu Phe Glu Ile Thr Thr Asn Phe Pro Lys
                410                 415                 420
Arg Val Leu Phe Ser Lys Ala Asn Leu Asp Ala Ala Gly Glu Thr
                425                 430                 435
Gly Thr Ala Lys Glu Thr Leu Thr Lys Thr Leu Gln Ala Val Gly
                440                 445                 450
Leu Lys Asn Arg Glu Leu Leu Phe Val Asn Asp Leu Glu Ala
                455                 460
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<210> 44
<211> 219
<212> PRT
<213> Mus musculus

<300>
<308> GenBank ID No: g3114594

<400> 44

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Met Glu Tyr Leu Ser Ala Phe Asn Pro Asn Gly Leu Leu Arg Ser
 1               5                  10                  15
Val Ser Thr Val Ser Ser Glu Leu Ser Arg Arg Val Trp Asn Ser
            20                  25                  30
Ala Pro Pro Pro Gln Arg Pro Phe Arg Val Cys Asp His Lys Arg
            35                  40                  45
Thr Val Arg Lys Gly Leu Thr Ala Ala Ser Leu Gln Glu Leu Leu
            50                  55                  60
Asp Lys Val Leu Glu Thr Leu Leu Leu Arg Gly Val Leu Thr Leu
            65                  70                  75
Val Leu Glu Glu Asp Gly Thr Ala Val Asp Ser Glu Asp Phe Phe
            80                  85                  90
Gln Leu Leu Glu Asp Asp Thr Cys Leu Met Val Leu Glu Gln Gly
            95                  100                 105
Gln Ser Trp Ser Pro Lys Ser Gly Met Leu Ser Tyr Gly Leu Gly
            110                 115                 120
Arg Glu Lys Pro Lys His Ser Lys Asp Ile Ala Arg Ile Thr Phe
            125                 130                 135
Asp Val Tyr Lys Gln Asn Pro Arg Asp Leu Phe Gly Ser Leu Asn
            140                 145                 150
Val Lys Ala Thr Phe Tyr Gly Leu Tyr Ser Met Ser Cys Asp Phe
            155                 160                 165
Gln Gly Val Gly Pro Lys Arg Val Leu Arg Glu Leu Leu Arg Gly
            170                 175                 180
Thr Ser Ser Gln Leu Gln Gly Leu Gly His Met Leu Leu Gly Ile
            185                 190                 195
Ser Ser Thr Leu Arg His Val Val Glu Gly Ala Asp Arg Trp Gln
            200                 205                 210
Trp His Gly Gln Arg His Leu His Ser
            215
```